HISTORIC PROPERTY INVENTORY FORM

State of Washington, Department of Community Development
Office of Archaeology and Historic Preservation
111 21st Avenue Southwest, Post Office Box 48343
Olympia, Washington 98504-8343 (206)753-4011

IDENTIFICATION SECTION

Field Site No. 212-N **OAHP No.** _____ **Date Recorded** 15-Mar-99
Site Name Historic Lag Storage Building
Common _____
Field Recorder Jim Sharpe
Owner's Name U.S. Department of Energy, Richland Operations Office
Address P.O. Box 550
City/State/Zip Code Richland, WA 99352

Status

- [x] Survey/Inventory
- [ ] National Register
- [ ] State Register
- [ ] Determined Eligible
- [ ] Determined Not Eligible
- [ ] Other (HABS, HAER, NHL)
- [ ] Local Designation

Photography

Photography Neg. No. 8406905-13cn
(Roll No. & Frame No.)
View of
Date

Classification [ ] District [ ] Site [x] Building [ ] Structure [ ] Object
District Status [x] NR [ ] SR [ ] LR [ ] INV
Contributing [x] **Non-Contributing** [ ]
District/Thematic Nomination Name Hanford Site Manhattan Project and Cold War Historic District

LOCATION SECTION

Address Building
City/Town/County/Zip Code Richland/Benton County/99352
Twp 13 N **Range** 26 E **Section** 20 **I/4 Section** SW **1/4 1/4 Sec** SW
Tax No./Parcel No. _____ **Acreage** _____
Quadrangle or map name Gable Butte, Wash. 1986
UTM References Zone 11 **Easting** 301820 **Northing** 5162880
Plat/Block/Lot _____
Supplemental Map(s) _____

Description Section
Materials & Features/Structural Types

Building Type Industry
Plan _____
Structural System _____
No. of Stories _____

Roof Type

- [ ] Gable
- [ ] Hip
- [ ] Flat
- [ ] Pyramidal
- [ ] Monitor
- [ ] Other (specify) _____
- [ ] Gambrel
- [ ] Shed

Cladding (exterior Wall Surfaces

- [ ] Log
- [ ] Horizontal Wood Siding
  - Rustic/Drop [ ]
  - Clapboard [ ]
- [ ] Wood Shingle
- [ ] Board and Batten
- [ ] Vertical Board
- [ ] Asbestos/Asphalt
- [ ] Brick
- [ ] Stone
- [ ] Stucco
- [ ] Terra Cotta
- [x] Concrete/Concrete Block
- [ ] Vinyl/Aluminum Siding
- [ ] Metal (specify) _____
- [ ] Other (specify) _____

Roof Material

- [ ] Wood Shingle
- [ ] Wood Shake
- [ ] Composition
- [ ] Slate
- [ ] Tar/Built-up
- [ ] Tile
- [ ] Metal (specify) _____
- [ ] Other (specify) _____
- [ ] Not visible

Foundation

- [ ] Log
- [ ] Post & Pier
- [ ] Stone
- [ ] Brick
- [X] Not visible
- Concrete
  - [ ] Block
  - [ ] Poured
  - [ ] Other (specify) _____

High Styles/Forms (Check one or more of the following)

- [ ] Greek Revival
- [ ] Gothic Revival
- [ ] Italianate
- [ ] Second Empire
- [ ] Romanesque Revival
- [ ] Stick Style
- [ ] Queen Anne
- [ ] Shingle Style
- [ ] Colonial Revival
- [ ] Beaux Arts/Neoclassical
- [ ] Chicago/Commercial Style
- [ ] American Foursquare
- [ ] Mission Revival
- [ ] Spanish Colonial Revival/Mediterranean
- [ ] Tudor Revival
- [ ] Craftsman/Arts & Crafts
- [ ] Bungalow
- [ ] Prairie Style
- [ ] Art Deco/Art Moderne
- [ ] Rustic Style
- [ ] International Style
- [ ] Northwest Style
- [ ] Commercial Vernacular
- [ ] Residential Vernacular (see below)
- [x] Other (specify) Industrial Vernacular

Vernacular House Types

- [ ] Gable Front
- [ ] Gable Front and Wing
- [ ] Side Gable
- [ ] Cross Gable
- [ ] Pyramidal/Hipped
- [x] Other (specify) Industrial Vernacular

Integrity (Include detailed description in **Description of Physical Appearance**)

	Intact	Slight	Moderate	Extensive
Changes to plan	x			
Changes to windows				
Changes to original cladding	x			
Changes to interior				
Other (specify)				

NARRATIVE SECTION

Study Unit Themes (check one or more of the following)

	Agriculture		Conservation		Politics/Government/Law
	Architecture/Landscape Architecture		Education		Religion
	Arts		Entertainment/Recreation		Science & Engineering
	Commerce		Ethnic Heritage (specify) _____		Social Movements/Organizations
	Communications		Health/Medicine		Transportation
	Community Planning/Development		Manufacturing/Industry	x	Other (specify) Manhattan Project & Cold War Era
			Military	x	**Study Unit Sub-Theme(s)** Reactor Operations, Operations Support

Statement of Significance

Date of Construction 19 45 Architect/Engineer/Builder General Electric Company

x In the opinion of the surveyor, this property appears to meet the criteria of the National Register of Historic Places.

x In the opinion of the surveyor, this property is located in a potential historic district (National and/or local).

The 212-N Lag Storage Building was constructed in 1945 and was used to provide underwater storage of irradiated fuel elements from the 100 Areas. The facility was designed to store the irradiated fuel rods that had exited the production reactors and were awaiting dissolution in the chemical processing facilities of the 200-E and 200-West Areas. The storage of irradiated fuel rods prior to chemical processing allowed decay time for short-lived isotopes which was an important step in the environmental and personnel safety program. Decay time had a direct effect on how much fresh fission product would be released during dissolving. For example, the longer the cooling time, the more decay or stabilization of radionuclides could occur. The facility provided underwater storage of irradiated slugs from 1945 to 1952 and was sealed in 1972.

It is the conclusion of the U.S. Department of Energy that Building 212-N, through its role in reactor and chemical separations operations support, is eligible for inclusion in the National Register of Historic Places under Criterion A as a contributing property within the Hanford Site Manhattan Project and Cold War Era Historic District.

Description of Physical Appearance

The 212-N Building was designed as a one story, steel framed, windowless facility with two main sections and a heat room oriented north/ south. It was 74 feet by 89 feet 8-inches by 37 feet 6-inches. Each section had a concrete slab, roof, and walls constructed of concrete and concrete block. The facility contained no windows. The low roof section of the facility was 12 feet above grade and 18 feet below grade. It contained a 2 inch wood floor with walkways in the higher roofed section. The facility contained a transfer room, where the irradiated fuel rods arrived and left in rail cask cars, a storage room, fan room, and overhead bridge with a crane and monorail. The transfer room contained two transfer pits and accomodations for one special railcar. The railroad car entrance extended into the facility 54 feet and was covered with an overhead steel door. The transfer room also contained a 30-ton overhead crane to handle casks from the railroad. In the unloading area, the interior height was 35 feet from the top of the railroad rails to the ceiling.

The storage room housed a water filled concrete pool with a sub-level of 20 feet 9-inches deep. A monorail system operated from the transfer pits to the storage room. The fan room was located on the east side of the building and housed the heating and ventilating system. Air was delivered via wall ducts into the storage room after it was filtered and pre-heated by an electric unit heater. The facility contained five doors with outside concrete platforms and steps.

Major Bibliographic References

Drawing Number W-71674 and W-71323
Westinghouse Hanford Company. 1993. *Manhattan Project Buildings and Facilities at the Hanford Site: A Construction History.* WHC-MR-0425. Richland, Washington.
Westinghouse Hanford Company. 1988. *Hanford Surplus Facilities Programs Facilities Listing and Descriptions. WHC-SP-0331. Richland, Washington.*
Bechtel Hanford, Inc., 1997. *212-N/212-R Storage Building Preliminary Hazards Assessment.* BHI-01060. Richland, Washington.

Reference Drawings

W71674 and W71323